



MIDWEST CLIMATE CITIES TOOLKIT

Electric Vehicles for Municipalities

Electric vehicles (EVs) have become a cost-saving way for cities to reduce pollution and fight climate change. Transportation is America's single largest contributor to greenhouse gas emissions. It also is frequently one of municipalities' greatest sources of local air pollution. By incrementally and strategically transitioning municipal fleets from gasoline-powered vehicles to EVs, cities can simultaneously save money, raise local air quality, improve public health, and take meaningful action to reduce their carbon footprints.

Benefits of Electric Vehicle Municipal Fleets

Municipal fleets almost always have a share of vehicles due for retirement and replacement. By simply swapping out gas-powered vehicles for EVs during that replacement process, municipalities have a recurring opportunity to help advance several priorities: reducing budget expenditures, improving residents' quality of life, and meeting long-term strategic climate goals. This sort of compound policy success has become even more important today, given the fiscal uncertainty faced by many Midwest local governments.

Investing in electric vehicles can benefit municipalities in many ways.

COST SAVINGS

EV prices have fallen sharply in recent years and are set to drop further in the near future. This price decrease, coupled with EVs' cheaper fuel and maintenance costs, makes EVs an economical option for cities. Even before subtracting subsidies, EVs frequently have a lower total cost of ownership over their lifetime compared to gas vehicles.

PREDICTABLE BUDGET

Electricity rates are significantly more stable than gasoline prices, making it easier to budget annual costs for EV fleets. EVs also have lower maintenance costs because they have fewer parts, further reducing variance in budget expenditures.

CLIMATE GOALS

As cities in the Midwest develop ambitious plans to help combat climate change, EVs provide a practical method to reduce carbon emissions. Plug-in vehicles average half the carbon footprint of gasoline-powered vehicles. EVs can even provide a carbon-free mode of transportation when paired with clean energy, such as solar-powered charging stations. Municipalities also can serve an important leadership role in communities by demonstrating the value and reliability of EVs to encourage widespread adoption.

AIR POLLUTION

EVs improve local air quality because they have zero emissions, which means they produce none of the particulate matter, sulfur dioxide and carbon monoxide generated by gasoline-powered vehicles. Those compounds become trapped close to the ground, and have been proven to cause asthma, emphysema and chronic bronchitis.





Moving Forward with Solar

1. Create a Goal

It takes time and a plan to modernize municipal fleets. Set a timeline for adding EVs to your fleet. Publicly announce your municipality's dedication to incrementally transitioning to an EV fleet by passing an ordinance or resolution identifying goals in alignment with your sustainability objectives.

- [Municipal fleet EV resolutions example](#), [more examples](#), and [policy support resources](#)

2. Review Federal & State Financial Incentives

State and federal tax breaks and subsidies encourage the purchase of EVs and charging stations.

- [U.S. Dept. of Energy List of Federal and State Incentives](#) and [Tesla List of State Rebates](#)

3. Identify Vehicles for EV Replacement & Compare Lifecycle Costs

Ideal candidates for EV replacement are vehicles that: are nearing retirement; travel high average daily mileage; idle often; or make frequent short trips. Fleet telematic data can help identify optimal choices. In addition to light vehicles, transit busses and other medium- and heavy-duty vehicles also can be targeted for EV replacement. Once identified, compare the total cost of ownership of replacing the vehicle with an EV vs. a gas-powered vehicle. Several online tools can help with this comparison.

- [Fleet Procurement Analysis Tool](#)

4. Adopt EV Management Practices

The operation, maintenance and fueling schedules of EVs differs notably from gas vehicles, requiring fleet managers to develop new practices and trainings prior to EV deployment. Managers should consider potential savings from time-of-use electricity pricing when planning EV charging schedules.

- [Fleet Transition Planning for Alternative Fuel Vehicles](#)

5. Determine EV Procurement Method

Municipalities have used competitive RFPs, cooperative purchasing agreements, commercial leasing, and third-party financing models to procure EVs. Cooperative purchasing groups, such as the Climate Mayors Electric Vehicle Purchasing Collaborative, leverage the collective buying power of municipalities to reduce EV prices. Procurement collaboratives also often assist with other EV planning, including: policy advising, charging port acquisition and lifecycle cost calculation.

- [Climate Mayors Electric Vehicle Purchasing Collaborative](#)
- [Guide to Financing Alternative Fuel Vehicle Procurement](#)

6. Select, Procure, & Install EV Charging Ports

Municipalities will need to buy and install charging ports to power EVs. Chargers vary in price based on charging speed. Cities must plan charging infrastructure procurement based on the types of EVs deployed and daily charging schedules. Chargers can be purchased through collaborative procurement.

- Climate Mayors EV Collaborative Charging Station Solutions and [EV infrastructure example](#)

Still want to learn more?

The Electrification Coalition has a [resource center](#) with case studies, policy reports and other tools for municipalities aiming to make the switch to EVs. Fleets for the Future has many [“best practices” resources](#) for municipal EV procurement.

